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EXAMINER

GILLIGAN, CHRISTOPHER L

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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1 UNITED STATES PATENT AND TRADEMARK OFFICE

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4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
6

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8 *Ex parte* DAVID A. SELBY
9

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11 Appeal 2008-1164
12 Application 09/628,398
13 Technology Center 3600
14

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16 Decided: May 20, 2008
17

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19 Before JENNIFER D. BAHR, LINDA E. HORNER, and
20 ANTON W. FETTING, *Administrative Patent Judges*.
21 FETTING, *Administrative Patent Judge*

22 DECISION ON APPEAL

23
24 STATEMENT OF CASE
25

26 David A. Selby (Appellant) seeks review under 35 U.S.C. § 134 of a
27 final rejection of claims 1-26, the only claims pending in the application on
28 appeal.

1 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b)
2 (2002).

3 We REVERSE.
4

5 The Appellant invented an improvement of yield management for group
6 reservations of perishable commodities such as airline seats, hotel rooms and
7 the like in purchasing and reservation systems (Specification 1:5-8). The
8 invention is implemented by predicting the likelihood of materialization of
9 pending reservations reserved as part of a group booking. This prediction is
10 performed by gathering and storing information about prior reservations
11 attributed to group bookings, details of a current group reservation, and
12 characteristics related to the group coordinator making the
13 group/reservation, and using this information to determine the
14 materialization level of a pending current group reservation (Specification
15 7:3-10).

16 An understanding of the invention can be derived from a reading of
17 exemplary claim 1, which is reproduced below [bracketed matter and some
18 paragraphing added].

19 1. A method, using a processing device, for materialization
20 forecasting with respect to group reservations made by a group
21 coordinator for the potential purchase of a particular perishable
22 commodity, comprising the steps of:

23 [1] gathering past system-wide reservation information
24 [1.a] relating to past group reservations
25 for perishable commodities
26 that have already perished,

1 [1.b] said system-wide reservation information including
2 information unrelated to said particular perishable
3 commodity;

4 [2] gathering current reservation information
5 relating to a current group reservation
6 for said particular perishable commodity,
7 which current group reservation has not yet perished;

8 [3] comparing

9 [3.a] said gathered past reservation information unrelated
10 to said particular perishable commodities and

11 [3.b] said current reservation information, using said
12 processing device;

13 [4] calculating,

14 using said processing device,
15 the materialization level of said current group reservation
16 based on said comparison; and

17 [5] outputting a materialization forecast result

18 for said current group reservation
19 based on said calculated materialization level.
20

21 This appeal arises from the Examiner's final Rejection, mailed October
22 21, 2004. The Appellant filed an Appeal Brief in support of the appeal on
23 December 19, 2005. An Examiner's Answer to the Appeal Brief was mailed
24 on May 11, 2007.

25 PRIOR ART

26 The Examiner relies upon the following prior art:

Jung	US 4,775,936	Oct. 4, 1988
Bowen	US 5,648,900	Jul. 15, 1997

REJECTIONS

Claims 1-26 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Claims 1, 2, 14, and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jung.

Claims 3-13 and 16-26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jung and Bowen.

ISSUES

The issues pertinent to this appeal are:

- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1-26 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.
- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1, 2, 14, and 15 under 35 U.S.C. § 103(a) as unpatentable over Jung.
- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 3-13 and 16-26 under 35 U.S.C. § 103(a) as unpatentable over Jung and Bowen.

The pertinent issue turns on whether the negative limitation in step [1.b] of information being “unrelated to said particular perishable commodity” leads to the claim being insolubly ambiguous or contradictory.

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004).

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted “in view of the specification” without importing limitations from the specification into the claims unnecessarily)

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the Specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

1 *Indefiniteness*

2 The test for definiteness under 35 U.S.C. § 112, second paragraph, is
3 whether “those skilled in the art would understand what is claimed when the
4 claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety*
5 *Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986) (citations
6 omitted). A claim may be invalid for indefiniteness if it is “insolubly
7 ambiguous” and not “amenable to construction.” *Exxon Research & Eng’g*
8 *Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). “Thus, the
9 definiteness of claim terms depends on whether those terms can be given
10 any reasonable meaning.” *Datamize LLC v. Plumtree Software, Inc.*, 417
11 F.3d 1342, 1347 (Fed. Cir. 2005).

12
13 *Obviousness*

14 A claimed invention is unpatentable if the differences between it and
15 the prior art are “such that the subject matter as a whole would have been
16 obvious at the time the invention was made to a person having ordinary skill
17 in the art.” 35 U.S.C. § 103(a) (2000); *KSR Int’l v. Teleflex Inc.*, 127 S.Ct.
18 1727 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

19 In *Graham*, the Court held that that the obviousness analysis is
20 bottomed on several basic factual inquiries: “[(1)] the scope and content of
21 the prior art are to be determined; [(2)] differences between the prior art and
22 the claims at issue are to be ascertained; and [(3)] the level of ordinary skill
23 in the pertinent art resolved.” 383 U.S. at 17. *See also KSR Int’l v. Teleflex*
24 *Inc.*, 127 S.Ct. at 1734. “The combination of familiar elements according to
25 known methods is likely to be obvious when it does no more than yield
26 predictable results.” *KSR*, at 1739.

“When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *Id.* at 1740.

“For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.*

“Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 1742.

ANALYSIS

Claims 1-26 rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

The Appellant argues these claims as a group.

Accordingly, we select claim 1 as representative of the group.
37 C.F.R. § 41.37(c)(1)(vii) (2007).

The Examiner found that claim 1's limitation of being unrelated was a negative limitation, which attempts to define the information in terms of what it is not, rather than what it is. As such, the scope of the claim cannot be ascertained (Answer 4). This identical finding was earlier raised in related application 09/628,400 having substantially similar claims at issue.

As we understand it, the Examiner’s difficulty with the scope of the claims stems from the fact that the term “unrelated,” ordinarily understood

1 to mean not “connected or associated, as by origin or kind” (*Webster’s New*
2 *World Dictionary* 1198 (David B. Guralnik ed., 2nd Coll. Ed., Simon &
3 Schuster, Inc. 1984)), is a relative or subjective term. In other words, strictly
4 speaking, a relationship of some type can be found between any two people,
5 things, or topics. Consequently, depending on the remoteness of such
6 relationships, some might consider two such people, things, or topics to be
7 related while others might consider those same two people, things, or topics
8 to be unrelated. In a case such as this, we must determine whether
9 Appellant’s Specification supplies some standard for measuring the scope of
10 the phrase “information unrelated to said particular perishable commodity”
11 as used in Appellant’s claims. *See Datamize*, 417 F.3d at 1351.

12 Appellant’s Specification does not expressly define the term
13 “unrelated” in the context of “information unrelated to said particular
14 perishable commodity.” In fact, Appellant’s Specification does not use this
15 terminology outside of the claims. Appellant’s Specification does teach,
16 however,

17 in contrast to the prior art systems, which simply
18 compares the past booking history of, e.g., group
19 coordinator David S. of Timster Tours, the present
20 invention examines *all* reservations, group or
21 otherwise, and locates those which have similar
22 characteristics to those of the current group
23 reservation, not only those made by David S. of
24 Timster Tours.

25 As an example, assume that the group reservations
26 made by David S. over the past two years have an
27 average materialization level of 60%. Assume
28 further that the current group reservation request
29 from David S. being processed by current
30 reservation processor 316 is for a group of 150

1 people for a non-stop, Philadelphia-to-London
2 flight; the purpose of the trip is for a corporate
3 business retreat; the group reservation is being
4 made 9 months before the perishing date of the
5 flight; a 50% non-refundable down payment is
6 being made to hold the reservations; and the group
7 reservation is being made by direct contact
8 between the group coordinator and the airline.
9 Using the present invention, the data warehouse
10 300 is [sic] can search for *all* previous reservations
11 having the same attributes, and the materialization
12 level for *all* past reservations that have the same
13 attributes is evaluated. The past reservations that
14 are analyzed may be individual bookings having
15 characteristics similar to the bookings of the
16 current group reservation request, or the analysis
17 can be limited to past group bookings having
18 similar characteristics. Based on this information,
19 if it is determined that reservations having these
20 attributes have a 98 % materialization rate, this
21 factor is applied to the current reservation, using
22 the yield management system 314 in a well-known
23 manner.

24 Using the prior art method which would look only
25 at the past overall performance of David S., the
26 airline would assume that only 60% or 72 of the
27 150 reservations, would actually materialize, and
28 the yield management system 314 would allow
29 overbooking of the flight accordingly. Using the
30 present invention, however, the airline would
31 assume that for *this* particular group booking by
32 David S., 98 %, or 147 of the 150 reservations,
33 would actually materialize, and the overbooking
34 for this particular flight would be considerably less
35 than if the prior art methods were used.

36 (Specification 17:9 to 18:17) (emphasis in original).

1 From this disclosure it is possible to glean what Appellant means by
2 “information unrelated to said particular perishable commodity.”
3 Specifically, reservation information for a commodity that is *not* the
4 particular perishable commodity for which the potential purchase
5 materialization forecasting is being conducted is unrelated to said particular
6 perishable commodity. Any reservation information for the particular
7 perishable commodity for which the potential purchase materialization
8 forecasting is being conducted is related to said particular perishable
9 commodity.

10 In the particular embodiment described in Appellant’s Specification,
11 the materialization rate for group coordinator David S. of Timster Tours is
12 being calculated. Thus, the “particular perishable commodity” is any
13 reservation by group coordinator David S. of Timster Tours. In making the
14 calculation, Appellant’s described system and method compares the past
15 booking or reservation history of all reservations, not just those of group
16 coordinator David S. of Timster Tours, and compares it to the current
17 reservation information. The past reservation information gathered and used
18 for comparison thus includes reservation information for commodities that
19 are not the reservation by group coordinator David S. of Timster Tours, the
20 “particular perishable commodity” at issue.

21 In the example presented by the Examiner (Ans. 7-8), two separate
22 flights or flight segments between the same cities may be reasonably
23 considered “unrelated to said particular perishable commodity,” as used by
24 Appellant, only if it is the materialization rate for the potential purchase of a
25 particular flight, as opposed to any flight between those cities, that is being
26 forecast. If, on the other hand, the potential purchase materialization rate for

1 any flight between those cities is being forecast, reservation information for
2 every flight between those cities is related to the “particular perishable
3 commodity.”

4 In light of the above, we conclude Appellant’s Specification does
5 supply a standard for measuring the scope of the term “unrelated” and, more
6 particularly, of the phrase “information unrelated to said particular
7 perishable commodity,” as used in Appellant’s claims. The claims,
8 therefore, are “amenable to construction” and not “insolubly ambiguous.”

9 The Appellant has shown that the Examiner erred in rejecting claims 1-
10 26 under 35 U.S.C. § 112, second paragraph, as failing to particularly point
11 out and distinctly claim the invention.

12 *Claims 1, 2, 14, and 15 rejected under 35 U.S.C. § 103(a)*
13 *as unpatentable over Jung.*

14 The Appellant argues these claims as a group.

15 Accordingly, we select claim 1 as representative of the group.
16 37 C.F.R. § 41.37(c)(1)(vii) (2007).

17 The Examiner found that Jung described all of the limitations except for
18 outputting materialization, but that the skilled artisan would have found it an
19 obvious modification to Jung's method to output this level with the
20 motivation of quickly adjusting computer overbooking levels based on
21 calculations (Answer 5-8).

22 The Appellant contends that Jung relies on data for the actual flight,
23 which fails to meet the claim limitation of information unrelated to the
24 perishable commodity (Br. 10-11). This identical contention was earlier

1 raised in related application 09/628,400 having substantially similar claims
2 at issue.

3 The Examiner's findings are predicated on the Examiner's flawed
4 determination that Jung discloses comparing the gathered system-wide
5 reservation information unrelated to said particular perishable commodity
6 and the current reservation information (Ans. 7-8). Jung's overbooking
7 system outputs demand-based, oversale-based, and prediction-based booking
8 levels for each flight for which a calculation is made (col. 5, ll. 1-45). The
9 "particular perishable commodity" in Jung's system is thus any seat on a
10 particular flight. Jung's system includes a main data base that stores system-
11 wide historical information for flights for all passenger airplanes within the
12 fleet (col. 3, ll. 28-48), thus satisfying the "gathering past system-wide
13 reservation information . . . , said system-wide past reservation information
14 including information unrelated to said particular perishable commodity"
15 step of claim 1 and the "first subprocesses" recitation in claim 14. In
16 computing the booking level for each flight, however, Jung's overbooking
17 program 42 only uses information for that flight, not information for other
18 flights (col. 5, l. 46 to col. 6, l. 68). Jung's overbooking system, therefore,
19 does not compare gathered past system-wide information unrelated to said
20 particular perishable commodity and current reservation information, as
21 called for in claims 1 and 14, and claims 2 and 15 depending therefrom.

22 The Appellant has not sustained its burden of showing that the Examiner
23 erred in rejecting claims 1, 2, 14, and 15 under 35 U.S.C. § 103(a) as
24 unpatentable over Jung.

1 *Claims 3-13 and 16-26 rejected under 35 U.S.C. § 103(a) as unpatentable*
2 *over Jung and Bowen.*

3 The Examiner does not rely on or point to any teaching in Bowen that
4 makes up for the deficiency of Jung discussed above. The Appellant has
5 sustained its burden of showing that the Examiner erred in rejecting claims
6 3-13 and 16-26 under 35 U.S.C. § 103(a) as unpatentable over Jung and
7 Bowen.

8 CONCLUSIONS OF LAW

9 The Appellant has sustained its burden of showing that the Examiner
10 erred in rejecting claims 1-26 under 35 U.S.C. § 112, second paragraph, as
11 failing to particularly point out and distinctly claim the invention, and under
12 35 U.S.C. § 103(a) as unpatentable over the prior art.

13 DECISION

14 To summarize, our decision is as follows:

- 15 • The rejection of claims 1-26 under 35 U.S.C. § 112, second
16 paragraph, as failing to particularly point out and distinctly claim the
17 invention is not sustained.
- 18 • The rejection of claims 1, 2, 14, and 15 under 35 U.S.C. § 103(a) as
19 unpatentable over Jung is not sustained.
- 20 • The rejection of claims 3-13 and 16-26 under 35 U.S.C. § 103(a) as
21 unpatentable over Jung and Bowen is not sustained.

22 REVERSED

23 vsh

Appeal 2008-1164
Application 09/628,398

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